

Serial No. 10/766,919

**REMARKS****STATUS OF THE CLAIMS**

Claims 1-20 are rejected under 35 U.S.C. 101 for nonstatutory subject matter.

Claims 4, 9, 14 and 19 are rejected under 35 U.S.C. § 101 for preemption.

Claims 2, 3, 4, 7, 8, 12, 13, 14, 17, and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Claims 1, 6, 11, 16, and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

Claims 4, 9, 14, and 19 are rejected under 35 USC 112, 2<sup>nd</sup> paragraph, for indefiniteness, and the claims are amended taking into consideration the Examiner comments. Withdrawal of the rejection is requested.

Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Nguyen (U.S. Patent No. 6,832,214).

The claims are amended and added, and, thus, the pending claims remain for reconsideration, which is requested. No new matter has been added.

Regarding the 35 USC 101, statutory subject matter rejection, the claims are amended to recite to practical application of "generating the knowledge structure based upon the super class, the detected super-class related classes of knowledge and the relationships between the classes of knowledge; and outputting the generated knowledge structure describing the broader target concept," namely the invention is generation of a knowledge structure based upon "generating a relationship between the ~~components~~ classes of knowledge by an inference based on multivalued logic ... and outputting the generated knowledge structure describing the broader target concept." Withdrawal of this rejection is requested.

Regarding the 35 USC 101, preemption rejection, these claims are amended for clarity. Withdrawal of the rejection is requested.

Regarding the 35 USC 112, 1<sup>st</sup> paragraph, written description requirement rejection, the claims are amended along the lines the original claims and for clarity based upon the specification page 7, line 23 to page 9, line 18. Withdrawal of the rejection is requested.

Serial No. 10/766,919

Regarding the claim 4 language "wherein the relationship between the ~~components~~classes of knowledge includes a weight which weights ~~at~~the relationship," the claim language has been amended to retain the original claim language and it is submitted any weight can be applied as desired by one skilled in the art. The invention adds a "weight" to the relationship. Further, the specification page 12, line 11 to page 13, line 16 (page 14, lines 15-16) and page 14, line 4 to page 15, line 19 expressly describes an example of weight assignment and page 21, lines 14-19 expressly discusses use of weights to highlight from among the generated relationship the more valid relationships in relation to other relationships. Page 13, lines 15-16, expressly discuss that a weight can be inferred by multivalued logic (fuzzy logic, etc.), and the Response to Arguments asserts the accepted term of 'weight' has nothing to do with fuzzy logic. However, general definition of fuzzy logic implies that one skilled in the art knows that in fuzzy logic is used for reasoning and a degree of truth of a statement can have a range, namely the inventive concept uses the fuzzy logic to assign a weight to an associated relationship to highlight reliability to the user. It is readily apparent the rejection is not appropriate and withdrawal of the written description requirement is requested.

Regarding the 35 USC 112, 1<sup>st</sup> paragraph, enablement rejection of claims 1, 6, and 11, the language "generating a relationship between the ~~components~~classes of knowledge by an inference based on multivalued logic," provides that classes of knowledge are related based upon an inference that is established based upon multivalued logic. It is submitted one skilled in the art knows how to implement generation of such relationships based upon the descriptions in FIG. 2 and the specification page 12, line 11 to page 13, line 16, namely the function of processing a weighted relationship (three relationship elements of dependence, generalization, and relationship) is assigned, and the weight can be inferred by multivalued logic, namely fuzzy logic, generic logic, or etc. Page 14, lines 6-20 expressly describes an example of such relationship generation. In other words, a relationship is generated based upon dependence, generalization, and relationship elements, and the weight of the relationship is inferred by computing a weight of the relationship using a multivalued logic of fuzzy logic and/or generic logic. The Office Action page 7, item (H) asserts how fuzzy logic can be used to generate a relationship, however, the specification, for example, page 13, lines 15-16, expressly discuss that a weight can be inferred by multivalued logic (fuzzy logic, etc.). Withdrawal of the enablement rejection is requested.

Serial No. 10/766,919

Regarding the rejection under §102, it is traversed as follows:

Nguyen merely discloses generating a program with a neural network. Cited document Nguyen fails to disclose expressly or inherently (by failing to necessarily require) generating a knowledge structure based upon "generating a relationship between the ~~components~~classes of knowledge by an inference based on multivalued logic ... and outputting the generated knowledge structure describing the broader target concept." In other words, Nguyen fails to disclose expressly or inherently the claimed invention as supported by the configurations in Figs. 2, 3, 6, 10 and 11 and descriptions thereof. So in Nguyen, a program is generated with a neural network, while the claimed invention generates a knowledge structure for a target concept, for example, a component of a product (i.e., all products including hardware products) by inference. According to the inventor Applicant the claimed present invention is totally different from Nguyen.

Benefit not obtained from the invention of Nguyen

The present invention discloses a device that has a benefit of universally handling a modeling language (UML), namely "storing in a database classes of knowledge for generation of the knowledge structure," and that can automatically build a knowledge structure for any target concept, for example, a product, workflows, components of a product, etc.

New claim 23 is allowable by reciting "23. (NEW) The method according to claim 22, wherein the classes of knowledge are according to a universal modeling language (UML)."

Nguyen does not expressly or inherently contemplate this, so Nguyen cannot anticipate the claims.

Why such an effect can be obtained from the configuration of the present invention

As is readily apparent from the embodiment of the present invention described in the Specification, in the present invention, a relationship between knowledge classes can be inferred from the information (property) of the knowledge classes shown in Fig. 6. This enables the automatic generation of a relationship between the knowledge classes. Nguyen fails to disclose expressly or inherently a function such as the one in Fig. 6.

New dependent claim 22 is allowable, because it recites "22. (NEW) The method according to claim 6, wherein each class of knowledge includes property information, based

Serial No. 10/766,919

upon which the relationship between the classes of knowledge by inferring based on multivalued logic is generated."

Thus, a prima facie case of anticipation based upon Nguyen cannot be established, because Nguyen fails to disclose expressly or inherently a method of generating a knowledge structure based upon "generating a relationship between the ~~components~~ classes of knowledge by an inference based on multivalued logic ... and outputting the generated knowledge structure describing the broader target concept." Nguyen merely discloses generating a program, which does not necessarily require or inherently disclose generation of a knowledge structure for a target concept, for example, a product, workflows, components of a product, etc., based upon knowledge classes as claimed.

Allowance of independent claims 1, 6, and 11 is requested.

Allowance of dependent claims 22 and 23 is requested.

#### CONCLUSION

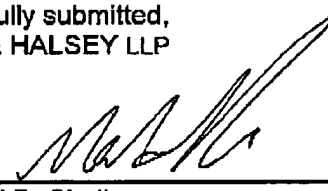
There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

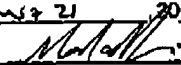
If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,  
STAAS & HALSEY LLP

Date: August 21, 2008

By:   
Mehdi D. Sheikerz  
Registration No. 41,307

1201 New York Avenue, N.W., 7th Floor  
Washington, D.C. 20005  
Telephone: (202) 434-1500  
Facsimile: (202) 434-1501

**CERTIFICATE OF FACSIMILE TRANSMISSION**  
I hereby certify that this correspondence is being transmitted via facsimile to: Commissioner for Patents,  
P.O. Box 1450, Alexandria, VA 22313-1450  
on August 21, 2008  
STAAS & HALSEY  
By:   
Date: August 21, 2008